UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT RIGHT-OF-WAY LEASE/GRANT

SERIAL NUMBER N-86292

1. As authorized by the Record of Decision for the *Tonopah Solar Energy Project (N-86292)*, dated December 20, 2010, a right-of-way lease/grant is hereby issued pursuant to Title V of the Federal Land Policy and Management Act of October 21, 1976 (90 Stat. 2776; 43 U.S.C. 1761) and the Bureau of Land Management right-of-way regulations (43 CFR Part 2800).

2. Nature of Interest:

a. By this instrument, the holder:

Tonopah Solar Energy, LLC 2425 Olympic Blvd. Suite 500 East Santa Monica, CA 90404

receives a right to use and occupy the following described public lands to construct, operate, maintain, and terminate one 110 MW Concentrated Solar Power (CSP) plant with storage capacity, including associated facilities:

Mount Diablo Meridian, Nevada

T. 5 N., R. 41 E.,

Sec. 33, SE¹/₄, E¹/₂SW¹/₄, E¹/₂SW¹/₄SW¹/₄, E¹/₂SE¹/₄NW¹/₄, S¹/₂NE¹/₄, NE¹/₄NE¹/₄;

Sec. 34, W½, SE¼, W½NE¼, SE¼NE¼, SW¼NE¼NE¼;

Sec. 35, SW¹/₄SW¹/₄NW¹/₄, SW¹/₄SW¹/₄, SE¹/₄NW¹/₄SW¹/₄, W¹/₂NW¹/₄SW¹/₄.

T. 4 N., R. 41 E.,

Sec. 2, LOT 4, W¹/₂SW¹/₄NW¹/₄;

Sec. 3, N½, NW¼SE¼, N½NE¼SE¼, SW¼NE¼SE¼, NW¼SW¼SE¼, N½SW¼, N½S½SW¼, SW¼SW¼SW¼SW¼;

Sec. 4, NE¼, N½SE¼, E½SE¼SE¼, NW¼SE¼SE¼, NE¼SW¼SE¼, NE¼NE¼SW¼, E½NW¼, E½ LOT 4, NE¼SW¼NW¼.

(As shown on maps attached as Exhibit A)

b. The instrument issued reflects the authorization of one 110 MW nominal output solar power plant and associated facilities, to include: a solar field (consisting of up to 17,500 dual axis tracking heliostats mounted on concrete or steel foundations), a 653-foot central receiver tower (includes concrete tower, solar receiver and crane), salt tanks, steam generation building and equipment, water treatment building and equipment, raw water tank, de-mineralized water tank, additional storage tanks for diesel and other fluids, septic systems, groundwater extraction wells, evaporative cooling tower and air cooled condenser (combined to form a hybrid-cooling system), evaporating ponds, a steam turbine & generator, step-up transformer that converts the output of the steam turbine generator to 230 kV, electrical switchgear, auxiliary transformers, lighting systems, communication systems including a supervisory control and data acquisition system (SCADA), various electrical equipment, emergency generators, fire pumps and suppression systems, electrical buildings, heliostat assembly building, administration building, operation building, a 24-foot wide, 0.3-mile access road from Pole Line Road to the site, drainage and stormwater control facilities (some within the security fence and some immediately adjacent and on the outside of the security fence), a 1-mile long 230-kV transmission line and associated conductors and communication lines from the power block location to the limit of fence; and the following temporary facilities as needed, only for the duration of the construction activity: a 33-acre temporary lay down and parking area, construction trailers, septic system, gravel processing equipment, concrete batch plant, and temporary power line from the nearby 55 kV Sierra Pacific Power Company (NV Energy) transmission line.

The total footprint covered by this instrument, consists of 2,094.27 acres, more or less. The footprint of the project area consists of 1,620 acres, more or less.

- c. This instrument shall expire on <u>December 31, 2039</u>, unless, prior thereto, it is relinquished, abandoned, or terminated pursuant to the terms and conditions of this instrument or of any applicable Federal law or regulation.
- d. This instrument may be renewed by the Authorized Officer. The holder is required to submit an application for renewal at least 120 calendar days prior to the expiration date of this instrument. The Authorized Officer will review the application for renewal to ensure the holder is complying with the terms, conditions, and stipulations of this instrument and applicable laws and regulations and determine if renewal is in the public interest. If renewed, the right-of-way shall be subject to the regulations existing at the time of renewal and any other terms and conditions that the Authorized Officer deems necessary to protect the public interest.
- e. Notwithstanding the expiration of this instrument or any renewal thereof, relinquishment, abandonment, or termination, the provisions of this instrument, to the extent applicable, shall continue in effect and shall be binding on the holder, its successors, or assigns, until they have fully satisfied the obligations and/or liabilities accruing herein before or on account of the expiration, relinquishment, abandonment, or prior termination, of the authorization.
- f. The Authorized Officer retains the right of access to the lands included within the right-of-way at any time and may enter any facility on the right-of-way in accordance with 43 CFR 2805.15(a). The holder shall pay monitoring fees in accordance with 43 CFR 2805.16 for the reasonable costs incurred in monitoring the construction, operation, maintenance, and termination of the

right-of-way.

g. This instrument is issued subject to valid existing rights in accordance with 43 CFR 2805.14.

3. Rental:

- a. For and in consideration of the rights granted, the holder agrees to pay the Bureau of Land Management fair market value rental, which includes both base rent and a megawatt capacity fee, as determined by the Authorized Officer unless specifically exempted from such payment by law or regulation. Provided, however, that the rental may be adjusted by the Authorized Officer, whenever necessary, to reflect changes in the fair market rental value as determined by the application of sound business management principles, and so far as practicable and feasible, in accordance with comparable commercial practices. The rental provisions of this authorization may also be modified consistent with the provisions of any regulatory changes or pursuant to the provisions of any new or revised statutory authorities.
- b. The rental includes an annual base rent for the acreage of the public land included in the authorization and a megawatt capacity fee based on the authorized megawatt capacity of the approved solar energy facilities. The base rent is due and payable upon the date of issuance of this instrument and will be paid on an annual basis consistent with the regulations. The base rent will be adjusted each year based on the Implicit Price Deflator-Gross Domestic Product (IPD-GDP) index. The megawatt capacity fee is based on the authorized megawatt capacity approved by the Authorized Officer, or an approved phase of development, and will be paid on an annual basis upon the start of electric generation from the solar energy facilities. The megawatt capacity fee will be phased-in over a 5-year period after the start of electric generation (at the rate of 20 percent the first year, 40 percent the second year, 60 percent the third year, 80 percent the fourth year, and 100 percent the fifth and subsequent years of operations). The 5-year phase-in period will apply separately to each phase of development as approved by the Authorized Officer.

4. Bond:

A Performance and Reclamation bond, in an amount determined by the Authorized Officer, shall a. be obtained by the holder to ensure compliance with the terms and conditions of this instrument. The Authorized Officer will require that the holder submit a Reclamation Cost Estimate for review and to assist the Authorized Officer in determining the bond amount. The holder shall provide the Authorized Officer proof that a bond in the required amount has been obtained prior to receiving a Notice to Proceed or at such earlier date as may be specified by the Authorized Officer. The amount of the bond will be limited to the anticipated liabilities associated with the activities approved by the Notice to Proceed. If the Notice to Proceed is limited to only an initial phase of development or activity, the bond amount will be limited to that phase or activity. The bond amount would increase with the issuance of a Notice to Proceed for future phases of development or additional activities. The bond must be maintained in effect until removal of improvements and restoration of the right-of-way authorization has been accepted by the Authorized Officer. Acceptable bond instruments include cash, cashier's or certified check, certificate or book entry deposits, negotiable U.S. Treasury securities (notes, bills, or bonds) equal in value to the bond amount, or surety bonds from the approved list of sureties (U.S.

Treasury Circular 570) payable to the Bureau of Land Management. The Authorized Officer will accept an irrevocable letter of credit as an acceptable form of bond. Irrevocable letters of credit must be payable to the Bureau of Land Management and issued by financial institutions that have the authority to issue letters of credit and whose operations are regulated and examined by a federal agency. The Bureau of Land Management will not accept a corporate guarantee as an acceptable form of bond. The Authorized Officer will review the bond on an annual basis to ensure adequacy of the bond amount. The bond will also be reviewed at the time of any assignment, modification, or renewal of this instrument. The Authorized Officer may increase or decrease the bond amount at any time during the term of the right-of-way authorization, consistent with the regulations.

- b. The holder agrees that any bond held as security for holder's performance of the terms and conditions of this instrument may, upon failure on the holder's part to fulfill any of the requirements herein set forth or made a part hereof, be retained by the United States to be applied as far as may be needed to the satisfaction of the holder's obligations assumed hereunder, without prejudice whatsoever to any other rights and remedies of the United States.
- c. Should the bond delivered under this instrument become unsatisfactory to the Authorized Officer, the holder shall, within 30 calendar days of demand, furnish a new bond. In the event of noncompliance with the terms and conditions of this instrument, the BLM will notify the holder that the surety or other bond instrument is subject to forfeiture and will allow the holder 15 calendar days to respond before action is taken to forfeit the bond and suspend or terminate the authorization.

5. Terms and Conditions:

- a. This instrument is issued subject to the holder's compliance with all applicable laws and regulations and, in particular, with the regulations contained in Title 43 Code of Federal Regulations Part 2800, including the terms and conditions required by 43 CFR 2805.12. Failure of the holder to comply with applicable law or regulations or any terms, conditions or stipulations of this instrument shall constitute grounds for suspension or termination thereof. The Authorized Officer may change the terms and conditions of this instrument as a result of changes in legislation, regulations, or as otherwise necessary to protect public health or safety or the environment in accordance with 43 CFR 2805.15(e).
- b. The right-of-way stipulations (Exhibit B), attached hereto, and, once approved by the Authorized Officer, the final Plan of Development, are incorporated into and made a part of this instrument as fully and effectively as if they were set forth herein in their entirety.
- c. The holder shall perform all operations in a good and workmanlike manner, consistent with the approved Plan of Development, so as to ensure protection of the environment and the health and safety of the public. The Authorized Officer may order an immediate temporary suspension of operations, orally or in writing, in accordance with 43 CFR 2807.16 to protect public health or safety of the environment. An immediate temporary suspension order is effective until the Authorized Officer issues a written Notice to Proceed.

- d. Except as specified in the attached stipulations (Exhibit B), the holder will not initiate any construction or other surface disturbing activities on the right-of-way without prior written authorization of the Authorized Officer. Such authorization will be a written Notice to Proceed (Form 2800-15) issued by the Authorized Officer or his/her delegated representative. Each Notice to Proceed will authorize construction or use and occupancy only as therein expressly stated and only for the particular location or use and occupancy therein described, i.e., a construction phase or site location. The Authorized Officer will issue a Notice to Proceed subject to such terms and conditions as deemed necessary when the design, construction, use, occupancy, and operation proposals are in conformity with the terms and conditions of this instrument. The Authorized Officer may by written notice suspend or terminate, in whole or in part, any Notice to Proceed which has been issued, when in his/her judgment, unforeseen conditions arise which result in the approved terms and conditions being inadequate to protect the public health and safety or to protect the environment.
- e. The holder shall start construction of the initial phase of development within 12 months after issuance of a Notice to Proceed but no later than 24 months after the effective date of the issuance of the right-of-way authorization. The holder shall complete construction within the timeframes approved in the Plan of Development, but no later than 24 months after start of construction, unless the project has been approved for phased development as provided for in paragraph (5)(f) herein.
- f. If a right-of-way authorization and approved Plan of Development provides for a phased development, construction of each subsequent phase must begin within 3 years of the start of construction of the previous phase. A Notice to Proceed will be required to be issued by the Authorized Officer for each phase of development. The Notice to Proceed for a particular phase of development may be subject to the issuance of additional Notices to Proceed for specific activities within the particular development phase.
- g. During operations, the holder shall maintain all onsite electrical generation equipment and facilities in accordance with the design standards in the approved Plan of Development. Any idle, improperly functioning, or abandoned equipment or facilities that have been inoperative for any continuous period of 3 months must be repaired, placed into service, and/or removed from the site within 30 calendar days from receipt of a written Notice of Failure to Ensure Diligent Development from the Authorized Officer, unless the holder is provided an extension of time by the Authorized Officer. The holder must submit a written request to the Authorized Officer for an extension of the 30-day deadline and show good cause for any delays in repairs, use, or removal; an estimate when corrective action will be completed; or provide evidence of diligent operation of the equipment and/or facilities.
- h. Failure of the holder to comply with any diligent development provision of this instrument may cause the Authorized Officer to suspend or terminate the authorization in accordance with 43 CFR 2807.17 2807.19, and use the posted Performance and Reclamation bond to cover the costs for removal of any idle or abandoned equipment and/or facilities. The Authorized Officer will provide the holder a written Notice of Failure to Ensure Diligent Development prior to the suspension or termination of the authorization. The holder will be provided an opportunity to respond to the written notice in accordance with 43 CFR 2807.17(c) and 2807.18 or submit a

written request to the Authorized Officer for an extension of the timelines in the approved Plan of Development.

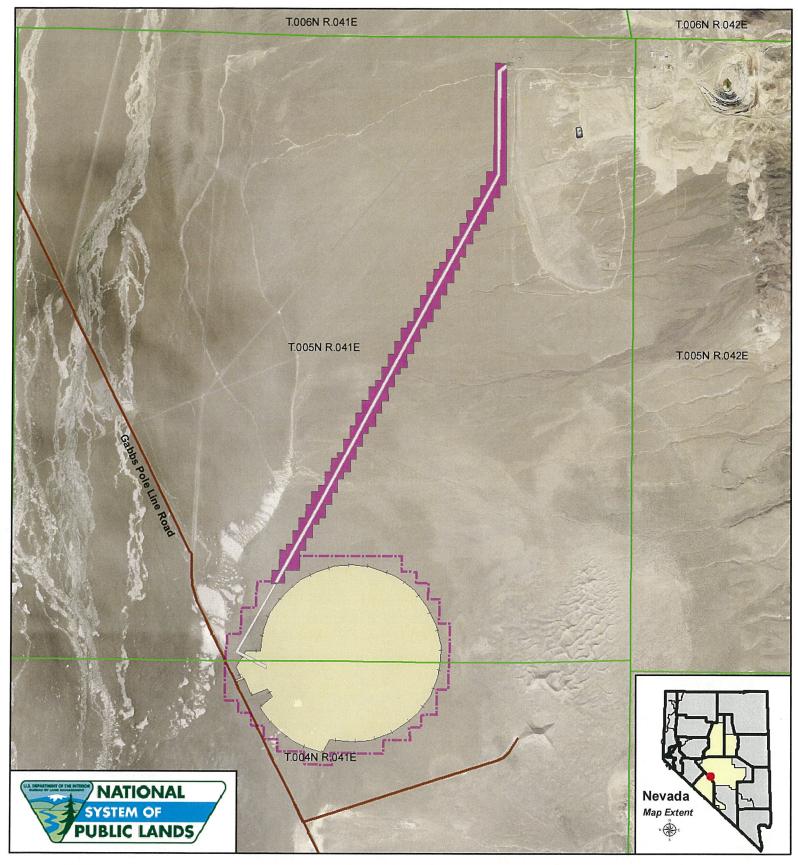
- i. Upon termination by the Authorized Officer or expiration of this instrument, all improvements shall be removed from the public lands within 180 calendar days or otherwise disposed of as provided for in the approved Plan of Development, or as directed by the Authorized Officer.
- j. This instrument shall, at a minimum, be reviewed by the Authorized Officer at the end of the 10th year and at regular intervals thereafter not to exceed 10 years. Provided, however, that this instrument may be reviewed at any time deemed necessary by the Authorized Officer in accordance with the regulations.
- k. This instrument may be assigned consistent with 43 CFR 2807.21, but all assignments are subject to approval by the Authorized Officer. In addition, the qualifications of all assignees must comply with the requirements of the 43 CFR 2807.21. A partial assignment of this instrument shall not be approved if such action would hinder the Authorized Officer's management of the authorization or the associated public lands.
- l. Upon the request of the Authorized Officer, the holder shall provide access to environmental, technical, and financial records, reports, and information related to construction, operation, maintenance and termination (i.e. decommissioning) of the right-of-way authorization. Any information marked confidential or proprietary will be kept confidential to the extent allowed by law. Failure of the holder to cooperate with such request, provide data, or grant access to such records, reports, and information may, at the discretion of the Authorized Officer, result in suspension or termination of the right-of-way authorization in accordance with the regulations.

IN WITNESS WHEREOF, The undersigned agree to the terms and conditions of this right-of-way.	
Keus Gruch	Them I Seley.
Kevin B. Smith	Thomas J. Seley
•	
President, Tonopah Solar Energy, LLC	Field Manager
(Title)	(Title)
12-21-10	12-21-10
(Date)	(Effective Date of Lease/Grant)

Attachments

Exhibit A: Map

Exhibit B: Stipulations



Exhitbit A

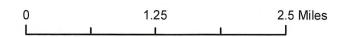
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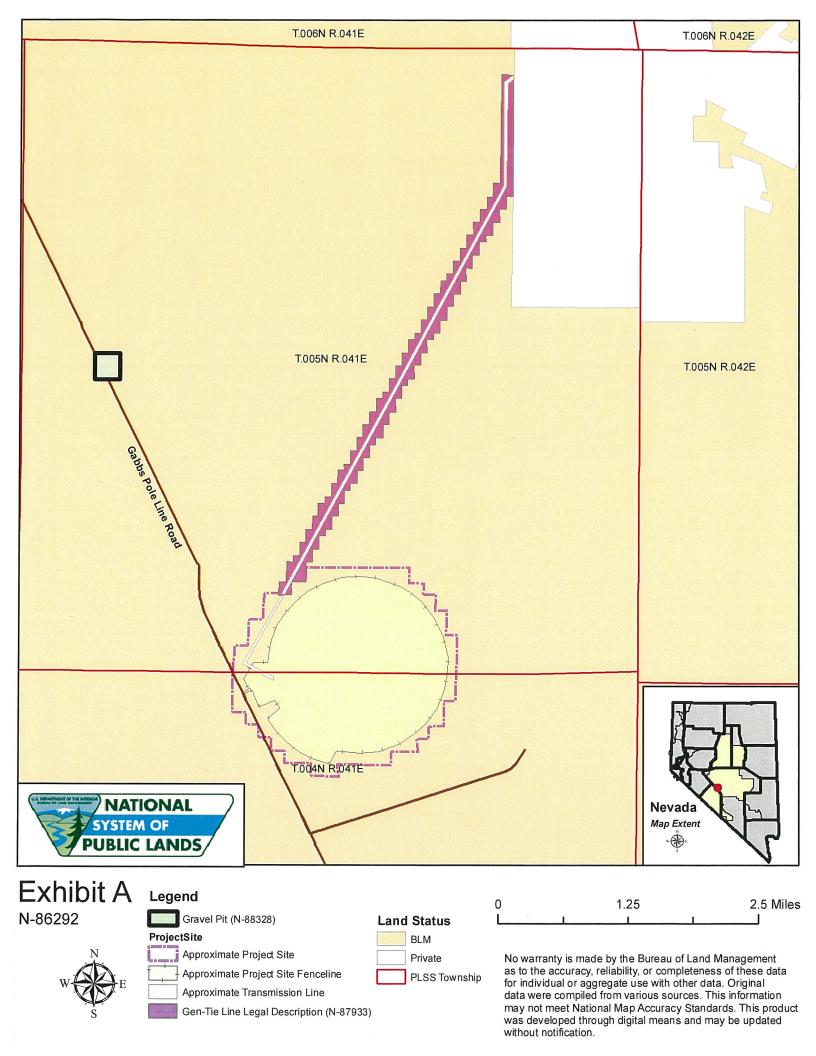
Legend

ProjectSite





No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed through digital means and may be updated without notification.



STIPULATIONS

Pre-construction/Construction Requirements Submission of Plans, Third Party Compliance Program and Permits

1. The holder shall construct, operate, and maintain the facilities, improvements, and structures within this right-of-way in strict conformity with the approved Plan of Development, as amended or supplemented by approval of the Authorized Officer. Any surface disturbing activity, additional construction, or use that is not in accord with the approved Plan of Development shall not be initiated without the prior written approval of the Authorized Officer. A copy of the complete right-of-way lease/grant, including all stipulations and approved Plan of Development, shall be made available on the right-of-way area during construction, operation, and decommissioning. Noncompliance with the above will be grounds for immediate temporary suspension of activities if it constitutes a threat to public health or safety or the environment.

Third Party Contracting (CIC)

- 2. The holder shall designate a representative who shall have the authority to act upon and to implement instructions from the Authorized Officer. The holder's representative shall be available for communication with the Authorized Officer within a reasonable time when construction or other surface disturbing activities are underway.
- 3. The holder shall fund and implement a third party Compliance Program with the Authorized Officer. The Program will include the holder hiring an independent third-party Compliance Inspection Contractor, to be approved by the Authorized Officer, to insure compliance with the terms, conditions and stipulations of this lease/grant, N-86292. All questions or concerns regarding compliance with the terms, conditions, and stipulations of this right-of-way lease/grant shall be directed to the Authorized Officer.

Human Health and Safety

- 4. Construction sites shall be maintained in a sanitary condition at all times; debris should not be allowed to accumulate under heliostat mirrors; waste materials at those sites shall be disposed of promptly at an appropriate waste disposal site. 'Waste' means all discarded matter including, but not limited to, human waste, trash, garbage, refuse, oil drums, petroleum products, ashes, and equipment. A litter policing program shall be implemented by the holder which covers all roads and sites associated with the right-of-way.
- 5. The holder shall comply with all applicable Federal, State, and local laws and regulations, existing or hereafter enacted or promulgated, with regard to any hazardous materials, as defined by 43 CFR 2801.5 that will be used, produced, or transported on or within the right-of-way, or used in the construction, operation, maintenance, or decommissioning of the right-of-way or any of its facilities.

The holder agrees in accordance with 43 CFR 2807.12(e) to fully indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980,

42 U.S.C. 9601 <u>et seq.</u>, or the Resource Conservation and Recovery Act of 1976, 42 U.S.C. 6901 <u>et seq.</u>) on the right-of-way (unless the release or threatened release is wholly unrelated to the right-of-way holder's activity on the right-of-way). This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

The holder shall immediately report any release of hazardous substances (leaks, spills, etc.) caused by the holder or third parties in excess of the reportable quantity as required by federal, state, or local laws and regulations. A copy of any report required or requested by any federal, state or local government agency as a result of a reportable release or spill of any hazardous substances shall be furnished to the Authorized Officer concurrent with the filing of the reports to the involved federal, state or local government agency.

The holder shall immediately notify the Authorized Officer of any release of hazardous substances, toxic substances, or hazardous waste on or near the right-of-way or potentially affecting the right-of-way of which the holder is aware.

As required by law, the holder shall have responsibility for and shall take all action(s) necessary to fully remediate and address the hazardous substance(s) on or emanating from the right-of way.

- 6. The holder will ensure that the all health and safety and emergency plans to be required for employees and contractors during construction, operations, and decommissioning of the authorized facility will comply with the Occupational Safety and Health Standards provided in federal regulation 29 CFR, Part 1910, as well as with applicable state and local occupational health and safety regulations.
- 7. The Holder shall mark the exterior boundaries of the right-of-way with stake and/or lath at 100 to 200 foot intervals prior to site mobilization. The intervals may be varied at the time of staking at the discretion of the Authorized Officer. The tops of the stakes and/or laths will be painted and the laths flagged in a distinctive color as determined by the holder. The holder shall maintain all boundary stakes and/or laths in place during construction and until final cleanup and restoration is completed. The requirements of this stipulation shall cease when cleanup and restoration of the site, post construction, are complete, and the GIS data required are submitted to the Authorized Officer. Cleanup and restoration post construction as it applies to this stipulation does not mean the site restoration after the project ceases operation.
- 8. All design, material, and construction, operation, maintenance, and termination practices shall be in accordance with safe and proven engineering practices.
- 9. The holder will arrange and attend preconstruction conference(s) prior to the holder's commencing construction and/or surface disturbing activities on the right-of-way or specific construction phase of the right-of-way as specified by the Authorized Officer. The holder and/or his representatives will attend this conference. The holder's contractor, or agents involved with construction and/or any surface disturbing activities associated with the right-of-way, will also attend this conference to review the stipulations of the authorization, including the Plan of Development, as applicable. The holder shall notify the Authorized Officer of the schedule for any preconstruction conference at least 10 calendar days in advance of the preconstruction conference or such timeframe as may be required by the Notice to Proceed.

10. The holder shall protect all survey markers found within the right-of-way. Survey markers include, but are not limited to, Public Land Survey System line and corner markers, other property boundary line and corner markers, and horizontal and vertical geodetic monuments. In the event of obliteration or disturbance of any of the above, the holder shall immediately report the incident, in writing, to the Authorized Officer and the respective installing authority if known. Where any of the above survey markers are obliterated or disturbed during operations, the Authorized Officer will determine how the marker is to be restored.

The holder will be instructed to secure the services of a registered land surveyor or informed that an official survey will be executed by the Bureau of Land Management (BLM). All surveying activities will be in conformance with the <u>Manual of Surveying Instructions</u> and appropriate State laws and regulations. Surveys by registered land surveyors will be examined by the Authorized Officer and the BLM State Office Chief Cadastral Surveyor for conformance with the <u>Manual of Surveying Instructions</u> and State laws and regulations before being filed in the appropriate State or county offices of record. The holder shall be responsible for all administrative and survey costs.

- 11. The holder shall provide for the safety of the public entering the right-of-way as appropriate. Acceptable methods includes, but are not limited to, barricades for open trenches, flagmen/women with communications systems for single-lane roads without intervisible turnouts, and attended gates during blasting.
- 12. The holder shall notify FAA by filing FAA Form 7460 at least 30 days before construction is to begin or the date that an application for construction permit is to be filed.
- 13. No signs or advertising devices shall be placed on the premises or on adjacent public lands, except those posted by or at the direction or authorization of the Authorized Officer.

Hazardous Materials

- 14. The holder shall implement a Hazardous Materials Handling Management Program or incorporate within their other program the items outlined below. Hazardous materials used and stored onsite will be managed according to the specifications outlined below as follows:
 - Hazardous Materials Handling Program. A project-specific hazardous materials management program will be developed prior to initiation of construction. The program will outline proper hazardous materials use, storage, and disposal requirements. The program will identify types of hazardous materials to be used during construction activities. All personnel will be provided with project-specific training. This program will be developed to ensure that all hazardous materials are handled in a safe and environmentally sound manner. Employees will receive hazardous materials training and will be trained in: hazardous waste procedures; spill contingencies; waste minimization procedures; and treatment, storage, and disposal facility (TSDF) training in accordance with OSHA Hazard Communication.
 - Transport of Hazardous materials. Hazardous materials that will be transported by truck include fuel (diesel fuel and gasoline), and oils and lubricants for equipment. Containers used to store

hazardous materials will be properly labeled and kept in good condition. Written procedures for the transport of hazardous materials used will be established in accordance with U.S. Department of Transportation (USDOT), and Nevada Department of Transportation (NDOT) regulations. A qualified transporter will be selected to comply with federal and state transportation regulations.

• Fueling and Maintenance of Construction Equipment: Written procedures for fueling and maintenance of construction equipment will be prepared prior to construction. Vehicles and equipment will be refueled on site or by tanker trucks. Procedures will include the use of drop cloths made of plastic, drip pans, and trays to be placed under refilling areas to ensure that chemicals do not come into contact with the ground. Refueling stations will be located in designated areas where absorbent pads and trays will be available. The fuel tanks will also contain a lined area to ensure that accidental spills do not occur. Drip pans or other collection devices will be placed under the equipment at night to capture drips or spills. Equipment will be inspected daily for potential leakage or failures. Hazardous materials such as paints, adhesives and solvents, will be kept in an approved locker or storage cabinet.

Pesticides

- 15. Use of pesticides and herbicides shall comply with all applicable Federal and State laws. Pesticides and herbicides shall be used only in accordance with their registered uses within limitations imposed by the Secretary of the Interior. Prior to the use of the pesticides, the holder shall obtain from the Authorized Officer, written approval of a Pesticide Use Proposal Plan showing the type and quantity of material to be used, pest(s) to be controlled, method of application, locations of storage and disposal of containers, and any other information deemed necessary by the Authorized Officer.
- 16. Only those chemicals (pesticides and herbicides) listed on the BLM approved label list are authorized for use on public lands. A Pesticide Use Proposal must be submitted for each chemical used, and it cannot be used until approval has been obtained in writing from the Authorized Officer. The proposal needs to identify any surfactants or dyes used in the spraying operation. Applicator(s) of chemicals used must have completed pesticide certification training and have a current up to date Certified Pesticide Applicator's License. Pesticide and herbicide application records for the areas and acres treated must be submitted to the Authorized Officer each year for the life of the project including the site restoration and reclamation periods. This includes the following:

Brand or Product name
EPA registration number
Total amount applied (use rate #A.I./acre)
Date of application
Location of application
Size of area treated
Method of treatment (air/ground)
Name of applicator
Certification number and dates
Costs to treatment
Amount of surfactants or dyes used in spraying operation

The record information must be recorded no later than 14 calendar days following the pesticide or herbicide application and must be maintained for ten years.

Geologic Events and Soils

- 17. To minimize or avoid potential hazards from earthquakes and other geologic events, the holder will be responsible for performing the appropriate inspections following geologic events in the vicinity of the project site. A report of any inspections and recommendations will be provided to the Authorized Officer, and recommendations of the report will be made to ensure that hazards are minimized for the next comparable or larger event. The holder will implement the recommended corrective actions outlined in the report.
- 18. The holder shall in accordance with the International Building Code (IBC) design and construct the Project facilities to withstand geological hazards by taking earthquake activity, seismicity, fault locations, and ground subsidence into consideration.
- 19. The holder shall acquire the appropriate insurance coverage to address potential off-site damage to structures or injury to people by facility structures that are moved off-site by a geologic event such as an earthquake or flash flood event.
- 20. The holder shall ensure that imported soils are free from contaminants before use on the site. At the request of the Authorized Officer, soils shall be tested (at the cost of the holder) to ensure that hazardous materials are not present within the imported fill.
- 21. The holder shall ensure that imported soils are consistent in texture and drainage characteristics to existing on-site soils before use on the site. At the request of the Authorized Officer and the expense of the holder, soils will be tested to ensure they are of the same soil type as pre-construction soils.
- 22. If drainages cannot be avoided by infrastructure placement, the holder shall design drainage crossings or diversions to accommodate estimated peak flows and ensure that natural volume capacity can be maintained throughout construction and upon post-construction restoration.

Fire Suppression

23. The holder shall be liable for all fire suppression costs resulting from fires caused during construction or operations. All guidelines and restrictions imposed by agency fire control officials will be followed.

The following fire prevention measures shall be implemented by the holder or its contractor during construction:

- Maintain a list of all relevant fire fighting authorities near the project site. The closest resources to respond to a wildland fire threatening the community of Tonopah would come from the Tonopah Volunteer Fire Department in Tonopah, Nevada;
- Have and maintain available fire suppression equipment in all construction areas, including but not limited to: water trucks, potable water pumps, and chemical fire extinguishers. Ensure an adequate supply of fire extinguishers for welding and brushing crews;

- Include mechanisms for fire suppression in all heavy equipment, including fire extinguishers and spark arresters or turbo-charging (which eliminates sparks in exhaust);
- Remove any flammable wastes generated during construction on a regular basis;
- Vegetation clearing shall be accomplished in a manner that reduces vegetation and does not create a fire hazard;
- Store all flammable materials used at the construction site;
- Allow smoking only in designated smoking areas; and
- Require all work crews to park vehicles away from flammable vegetation, such as dry grass and brush. At the end of each workday, heavy equipment should be parked over mineral soil, asphalt, or concrete, where available, to reduce the chance of fire.

Revised Plan of Development

- 24. The holder shall, prior to construction activities, provide the Authorized Officer a Revised Plan of Development, a Performance and Reclamation bond, a Site Restoration Plan, a Groundwater Monitoring Plan, and a Traffic Management Plan. Prior to construction, and upon approval of the Plan of Development, acceptance of the Performance and Reclamation bond, approval of the third-party Compliance Inspection Contractor, approval of the Site Restoration Plan, approval of the Groundwater Monitoring Plan, and approval of the Traffic Management Plan, a Notice to Proceed will be issued by the Authorized Officer.
- 25. The holder shall submit to the Authorized Officer a Revised Plan of Development that is reflective of the activities authorized in the right-of-way lease/grant. The holder shall ensure that the following elements are contained within the Revised Plan of Development:
 - A storm water monitoring and response plan to be used to minimize impacts from flood damage during the life of the project. At a minimum, this plan shall include: visual surveys of all structures for scour following major storm events, visual surveys of fencing to check for damage and/or debris, cleanup of broken equipment if failures do occur, inspection and cleanup of downslope or downgradient areas, if debris is transported off site, and adaptive management of flood protection and erosion actions if the monitoring plan reveals routine damage to project structures due to flooding. Any changes must be approved in advance by the Authorized Officer.
 - Flood risk control measures to be used to minimize impacts during the life of the project. These measures shall include at a minimum, the following items:
 - o Heliostat mirrors designed to be at least 6 inches above the surrounding grade; and
 - o Flows that may cross the power block shall be diverted around the power block to prevent flooding potential within the power block; and
 - Adaptive management of actions if erosion and sedimentation control measures are found to be insufficient or excessive or if flooding proves to be destructive. Any changes must be approved by the Authorized Officer.

Water Permits

26. The holder shall develop, implement, and submit for approval by the Authorized Officer a Groundwater Monitoring Plan prior to construction. The plan will include metering of project wells and monthly reports to Tonopah Public Utilities and quarterly reports on water to the BLM and State Engineer.

The holder will prior to beginning any clearing, grading or excavation activities associated with construction of the project, develop and implement an approved construction-phase Storm Water Pollution Prevention Plan (SWPPP) as required under the General Storm Water Construction Activity Permit, as well as implement any other project-specific mitigation measures required by other agencies (e.g. NDEP, Nye County, USACE).

The holder will obtain and comply with permits for construction of project specific water pipelines or septic system prior to construction of the plant.

The holder will apply for the appropriate water right permits for a change in place of use, manner of use and point of diversion (for water purchase option), as required, with the Nevada Division of Water Resources.

The holder prior to commercial operation, as required under the General Industrial Activity Storm Water Permit, will develop and implement an operations phase of the SWPPP.

Visual Resource Management /Night Lighting

- 27. Measures to reduce night lighting in all natural areas to avoid unnecessary visual disturbance to wildlife. Methods to be implemented include, but are not limited to, shielding methods, and/or reduced human intensity. Effective lighting should have screens that do not allow the bulb to shine up or out. All lighting to be located to avoid light pollution onto any adjacent lands as viewed from a distance. Lighting fixtures shall be hooded and shielded face downward, located within soffits and directed on or to pertinent site only, and away from adjacent areas.
- 28. Outdoor lighting to be low-pressure sodium lighting and photocell controlled through contacts that control the outdoor lighting. Sensor lights and directional lighting to be used in cases where safety and security would not be compromised.
- 29. Lighting will not be provided for in the solar field, but is expected to be provided for in the following areas: building interior equipment, office, control, maintenance, and warehouse; tower, exterior building entrances, outdoor equipment within the power block and tank areas; power transformers; power block roadway, parking areas within the power block area; tank area, entrance gate; water treatment and air cooled condenser areas.
- 30. A lighting plan shall be submitted with the site plan review and/or architectural drawings indicating the types of lighting and fixtures, the locations of fixtures, lumens of lighting, and the areas illuminated by the lighting plan.
- 31. Any required FAA lighting is exempt from this condition.

32. The holder shall ensure that all structures installed as part of the project will be color treated to reduce contrast with the surrounding environment. Structures to be color treated include the cooling tower siding and fan shroud, the air cooled condenser siding, building siding and roofing, water tanks, any walls surrounding switchyard/substation facilities, and any other walls or enclosed structures installed as part of the project. The holder will work with the Authorized Officer to select the appropriate color from the BLM approved color palette. All color treatments shall be approved by the Authorized Officer prior to any application.

Site Restoration

33. The holder shall develop, and submit for approval by the Authorized Officer, a Site Restoration Plan. If applicable, one component of that plan shall describe measures to mitigate and compensate for special status plants such as transplanting/re-seeding and/or compensation in consultation with appropriate agencies (USFWS, BLM, and/or NDOW). The plan will also outline the protocol for the re-vegetation of the portions of the project area that are classified as temporarily impacted. The plan will provide a matrix showing how the holder will address each species considered sensitive in terms of mitigation type (e.g., seed collection, salvage, fencing certain populations). This will include clearly describing how cacti will be salvaged, stored, and re-established or protected and relocated. The plan will also define success criteria in accordance with agency guidance and outline mitigation measures to be implemented if the success criteria are not met.

Traffic Management Plan

- 34. The holder will produce, and submit for approval by the Authorized Officer, a Traffic Management Plan that identifies Best Management Practices (BMP) to minimize construction-related traffic impacts. Specifically, the BMPs shall ensure an adequate flow of traffic in both directions by providing sufficient signage to alert drivers of construction zones, notifying emergency responders prior to construction, conducting community outreach, and control traffic around impacted intersections. The Traffic Management Plan shall also include the following:
 - To the extent possible, deliveries of materials will be scheduled for off-peak hours to reduce effects during periods of peak traffic;
 - To further reduce effect to the Gabbs Pole Line Road, the plan will identify alternate means of access to the site that may be used during peak construction or by traffic originating in locations other than Tonopah. The primary means of access, being Highway 95, then north on Gabbs Pole Line Road to the project site;
 - Truck traffic will be phased throughout construction;
 - Truck traffic will use designated truck routes when arriving to and departing from the proposed work sites;
 - Signs and public notices regarding construction work will be distributed before disruptions occur, identifying detours to maintain access, the use of flagmen or escort vehicles to control and direct traffic flow, and scheduling roadway work during periods of minimum traffic flow.

Noise

35. The holder shall ensure that construction equipment is maintained per manufacturers' recommendations. The holder shall ensure that all equipment is adequately muffled and maintained, to include: use of noise controls on standard construction equipment and shielding on impact tools, use of broadband noise backup alarms on mobile equipment, and installation of mufflers on exhaust stacks of all diesel and gasdriven engines.

Cultural

36. Any cultural resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

The holder shall immediately notify the BLM Authorized Officer of any paleontological resources discovered as a result of operations under this authorization. The holder shall suspend all activities in the vicinity of such discovery until notified to proceed by the Authorized Officer, and shall protect the locality from damage or looting. The Authorized Officer will evaluate, or will have evaluated, such discoveries as soon as possible, but not later than 5 working days after being notified. Appropriate measures to mitigate adverse effects to significant paleontological resources will be determined by the Authorized Officer after consulting with the holder. The holder is responsible for the cost of any investigation necessary for the evaluation and for any mitigation measures, including museum curation. The holder may not be required to suspend operations if activities can avoid further impacts to a discovered locality or be continued elsewhere, however not suspending operations must be approved by the Authorized Officer.

Although unlikely, any human remains that may be discovered during authorized activities shall be protected by all Project personnel and construction crew members by following the procedures set forth in Section VI of the October 26, 2009, State Protocol Agreement between the BLM and the Nevada State Historic Preservation Office. This includes at a minimum: 1) it is the responsibility of the holder to notify the BLM authorized contracting officer and archaeologist immediately, 2) cease all construction activities within a 100 meter buffer area, and 3) to ensure protection of the discovery from further damage or vandalism until a BLM-authorized archaeologist evaluates the nature of the materials. If needed, mitigation procedures will be developed by the BLM in consultation with the State Historic Preservation Office.

GIS requirements

37. Within 120 calendar days of completion of construction, the holder shall submit to the Authorized Officer, as-built drawings and a certification of construction verifying that the facility has been constructed in accordance with the design, plans, specifications, and applicable laws and regulations.

Within 90 days of construction completion, the holder shall provide the Authorized Officer with data in a format compatible with the Bureau's Arc-Info Geographic Information System to accurately locate and identify the right-of-way:

Acceptable data formats are:

Corrected Global Positioning System files with sub-meter accuracy or better, in UTM NAD 83; Zone 11;

ARCGIS export files on a CD ROM, shapefile, geodatabase.

Data may be submitted in any of the following formats: ARCGIS interchange, shapefile or geodatabase format. CD ROM in compressed or uncompressed format.

All data shall include metadata for each coverage, and conform to the <u>Content Standards for Digital</u> <u>Geospatial Metadata</u> Federal Geographic Data Committee standards. Contact the GIS Department at (775) 482-7800.

Biological and Wildlife Protocols

- 38. Preconstruction surveys must be conducted by qualified biologists according to the most current USFWS protocols, where available, by species. These surveys will include surveying mowing areas, brush clearing areas, and ground disturbance areas within habitat deemed suitable for sensitive species by a qualified biologist. These surveys will be conducted for the presence of special status plants, the presence of noxious weeds, and the presence of general and special status wildlife species, to reduce direct loss of vegetation and wildlife and to prevent the spread of noxious plant species. The holder will submit survey results to the Authorized Officer.
- 39. Prior to construction, a Noxious Weed Management Plan will be developed in accordance with BLM standards. Included in the noxious weed plan will be stipulations regarding construction, restoration, and operation (e.g. use of weed-free materials, washing of equipment, etc.).
- 40. Pre-construction surveys conducted to identify the locations of cacti plants that are protected by the State of Nevada (NRS 527.60-120) will be flagged and avoided until BLM authorizes a proper salvage protocol.
- 41. Construction holes left open over night shall be covered. Covers shall be secured in place and shall be strong enough to prevent livestock or wildlife from falling through and into a hole. Construction holes that are broad, shallow, and have sloped walls and that do not pose a safety concern are not subject to the stipulation (example: an excavation for a major equipment foundation that may be 100-feet wide by 100-feet long, and 4-feet deep, with slopes that allow an animal or person to walk out).
- 42. All powerlines shall be designed, installed, and constructed to be avian-safe in accordance with the standards outlined in "Suggested Practices for Avian Protection on Power Lines: the State of the Art in 2006" (APLIC 2006). Unless otherwise agreed to in writing by the Authorized Officer, powerlines shall also be constructed in accordance with standards outlined in "Suggested Practices for Raptor Protection on Powerlines", Raptor Research Foundation, Inc., 1996. The holder shall assume the burden and

expense of proving that pole designs not shown in the raptor protection publication are "eagle safe."

Such proof shall be provided by a raptor expert approved by the Authorized Officer. The BLM reserves the right to require modifications or additions to all powerline structures placed on this right-of-way, should they be necessary to ensure the safety of large perching birds. Such modifications and/or additions shall be made by the holder without liability or expense to the United States.

Raptor deterrents shall be installed and maintained on horizontal surfaces to deter avian predators to decrease predation risks for the pale kangaroo mouse and dune scarabs present in the vicinity of the solar facility and transmission alignment.

- 43. Avian and wildlife mortality monitoring of transmission lines and power poles, at the central receiving tower, and around the solar heliostats shall be conducted under the same frequency guidelines as the monitoring of the evaporation ponds.
- 44. A Worker Environmental Awareness Program (WEAP) shall be prepared by the holder. All construction crews and contractors will be required to participate in WEAP training prior to starting work on the project. The WEAP training shall include a review of the special status species and other sensitive resources that could exist in the project area, the locations of sensitive biological resources and their legal status and protections, and measures to be implemented for avoidance of these sensitive resources. A record of all trained personnel will be maintained.

Project personnel are not allowed to bring pets to the project area in order to minimize harassment or killing of wildlife and to prevent the introduction of destructive animal diseases to native wildlife populations.

Wildlife species may not be collected for pets or any other reason.

45. All ground-disturbing activities will be conducted outside the migratory bird nesting season (March 15 – July 31). If ground-disturbing activities cannot be avoided during this time period, pre-construction nest surveys shall be conducted by a BLM-approved biological monitor with the following guidelines:

For raptors specifically, the holder will use the USFWS Utah Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances (1999) to determine appropriate survey areas and disturbance buffers for active nests.

For all non-raptor bird species, surveys shall cover all potential nesting habitat in and within 300 feet of the area to be disturbed.

Surveys must be conducted between sunrise and 3 hours post-sunrise when birds are most active.

Because there are no standardized disturbance buffers for active non-raptor bird nests, if active nests are detected, a no-disturbance buffer zone (as determined by USFWS), NDOW, and BLM) will be established. Nest locations shall be mapped and submitted to the BLM as needed.

Active bird nests will not be moved during the breeding season unless the holder is expressly permitted to do so by the USFWS, BLM, and NDOW.

All active nests and disturbance or harm to active nests will be reported within 24 hours to the USFWS, the BLM, and NDOW upon detection. The biological monitor will halt work if it is determined that active nests are being disturbed by construction activities, until further direction or approval to work is obtained from the appropriate agencies.

- 46. The holder shall ensure that all steep-walled trenches, auger holes, or other excavations are covered at the end of each day. Fencing will be maintained around the covered excavations at night. For open trenches, earthen escape ramps will be maintained at intervals of no greater than 0.25 mile. A biological monitor will inspect all trenches, auger holes, or other excavations a minimum of twice per day, and also immediately prior to back-filling. Any species found will be safely removed and relocated out of harm's way, using a pool net when applicable. For safety reasons, biological monitors will, under no circumstance, enter open excavations.
- 47. The holder shall consult with the BLM, USFWS, and NDOW regarding conservation measures to be implemented to avoid impacts on desert bighorn sheep during construction. Avoidance and minimization measures could include such elements as preconstruction surveys, biological monitoring, and timing construction activities to avoid bighorn sheep active seasons.

Golden Eagle Nest Monitoring

48. Monitoring of the known golden eagle nest will be required during construction and at least five (5) years post-construction.

Monitoring can and should be done from the main road.

At least two (2) observation periods per season shall be completed between March – June. Observation periods will last at least four (4) hours, or until nest occupancy can be confirmed. Observation periods will be at least 30 days apart.

Surveyors need to be experienced with raptor identification and survey techniques. A report of findings should be submitted to Tonopah Solar Energy, NDOW, and the BLM that includes dates, times, species seen, activity, etc.

Evaporation Ponds

- 49. The holder shall comply with the following mitigation measures for evaporation ponds:
 - The evaporation ponds will be fenced on the perimeter; 8-feet high;
 - Anti perching devices will be deployed around the evaporations ponds;
 - Initiate the use of an air canon in order to haze waterfowl and frighten them away from the evaporation ponds;
 - Deployment of hazing devices, including visual scare devices, to discourage waterfowl from landing on the pond;

- Evaporation ponds will be monitored for wildlife mortality and a contingency plan for wildlife mortality incidents will be developed in consultation with the BLM, NDOW and the USFWS. The contingency plan will include short and long-term measures to deter wildlife from the area;
- A monitoring program will be implemented that includes a leak detection, collection and removal system and visual inspection of the pond liners and sludge deposits;
- Evaporation ponds will be monitored for increased levels of toxicity and a mitigation plan will be ready for implementation should toxicity levels rise.

Pale Kangaroo Mouse Monitoring

50. The holder will provide \$200,000.00 in funding for a phase study that will provide information to allow the BLM and NDOW to make timely, informed management and land use decisions related to the long-term management and conservation of the pale kangaroo mouse. The holder will place the first year's funding requirement of \$75,000.00 in a joint holder/BLM account prior to the execution of the right-of-way grant. The required funding balance will be paid over the following 2 years in payments of \$62,500.00, for a grand total of \$200,000.00 over 3 years. Each payment will be placed in a joint holder/BLM account annually to the date of the first payment. Fees incurred in setting up and maintaining this account and all interest accumulated by this account will be the responsibility and property of the holder. All disbursement of funds will be at the discretion of the BLM.

At a minimum, the holder's funding would contribute to the following phases: (1) Compile and summarize existing information and data regarding the pale kangaroo mouse such that is can be used to develop methodologies for later habitat mapping, surveying, and sampling distribution; this would result in GIS-usable data and (2) using information from phase one, conduct surveys to determine habitat needs, distribution, and relative abundance of the pale kangaroo mouse, with study efforts occurring primarily in the Lower Smoky Valley area identified in the EIS. These efforts must tie directly back to data needs for supporting management decisions.

Decommissioning/Air Standards

- 51. The holder shall conduct all activities associated with construction, operation, maintenance and decommission of this right-of-way lease/grant within its authorized limits.
- 52. The holder shall not violate applicable air standards or related facility sitting standards established by or pursuant to applicable federal, state, or local laws or regulations. The holder shall be responsible for dust abatement within the limits of the right-of-way lease/grant and is responsible for obtaining all necessary permits from appropriate authorities for acceptable dust abatement and control methods (e.g., water, chemicals). The holder shall be solely responsible for all violations of any air quality permit, law or regulation, as a result of its action, inaction, use or occupancy of the right-of-way.

Notwithstanding whether a violation of any air quality permit, law or regulation results, the holder will cooperate with the Authorized Officer in implementing and maintaining reasonable and appropriate dust control methods in conformance with the law and appropriate to the circumstances at the sole cost of the holder.

Prior to relinquishment, abandonment, or decommission of this right-of-way, the holder shall apply reasonable and appropriate dust abatement and control measures to all disturbed areas. The abatement and measures shall be designed to be effective over the long-term (e.g., rock mulch or other means) and acceptable to the Authorized Officer.

During excavation, backfilling, and contouring, the disturbed soil shall be wetted sufficiently in order to effectively reduce airborne dust and reduce soil erosion.

The project owner will use energy efficient powered light trucks for facility maintenance, except for mirror washing, welding rigs, or other specific activities which requires a larger vehicle.

The project owner will provide a site operations dust control plan that:

- Describes the wind erosion control techniques such as windbreaks, water, and approved chemical dust suppressants that will be used on areas that could be disturbed by vehicles or wind; and
- Identifies the location of signs throughout the facility that will limit traveling on unpaved portion of roadways to solar equipment maintenance vehicles only.

Traffic on the project site will be restricted to designated roadways within the site to minimize the disturbance of soil unrelated to actual construction of heliostats within the project.

Designated roadways that could be disturbed by vehicles or wind will be treated with an approved dust suppressant during both construction and operation. The approved suppressant will be one that has been applied previously on properties owned by the BLM, and that has been previously reviewed and approved by the Army Corps of Engineers as an acceptable dust palliative.

Areas within the project designated for construction of solar mirrors or other project related equipment that could be disturbed by wind will be treated with an approved dust suppressant during both construction and operation. The approved suppressant will be one that has been applied previously on properties owned by the BLM, and that has been previously reviewed and approved by the Army Corps of Engineers as an acceptable dust palliative. The ongoing application of approved suppressants during the long-term operation of the project will be made based upon determination of a need for additional coverage from time to time.

Mineral Material

53. Mineral material generated, and not needed for construction or development activities within the authorized limits of the right-of-way lease/grant, requires a specific BLM use authorization in accordance with regulations at 43 CFR 3600 prior to the removal of in place excess mineral material. All mineral material generated needs to be used on site within the right-of-way lease/grant area or stockpiled on site for sale by the BLM.